Missouri Department of Natural Resources

Total Maximum Daily Load Information Sheet

Lewistown Lake

Waterbody Segment at a Glance:


State map showing location of watershed

County: Lewis
Nearby Cities: Lewistown
Area of impairment: 27 acres
Pollutants: Atrazine,Cyanazine
Source: Corn and Sorghum Production

Note: Added to the 303(d) list in 2002

TMDL Priority Ranking: High

Description of the Problem

Beneficial uses of Lewistown Lake:

- Livestock and Wildlife Watering
- Protection of Warm Water Aquatic Life
- Protection of Human Health associated with Fish Consumption
- Boating and Canoeing
- Drinking Water Supply

Use that is impaired

- Drinking Water Supply

Standards that apply

- Missouri's Water Quality Standards10 CSR 20-7.031, Table A , allows a maximum of three micrograms per liter (µg/L) atrazine. Because this number is based on health risk associated with a 70 year exposure period, the three µg/L is interpreted as a long term average.
- A federal health advisory level of one microgram per liter (µg/L) cyanazine is recommended for drinking water supplies.

Background Information

The Lewistown Reservoir was formed by damming a tributary of the Middle Fabius River and is 29 acres in size. It was previously the sole public water supply for 500 customers. The City of Lewistown now receives its drinking water from the Clarence Cannon Wholesale Water Commission and no longer uses Lewistown Reservoir as a drinking water supply source.

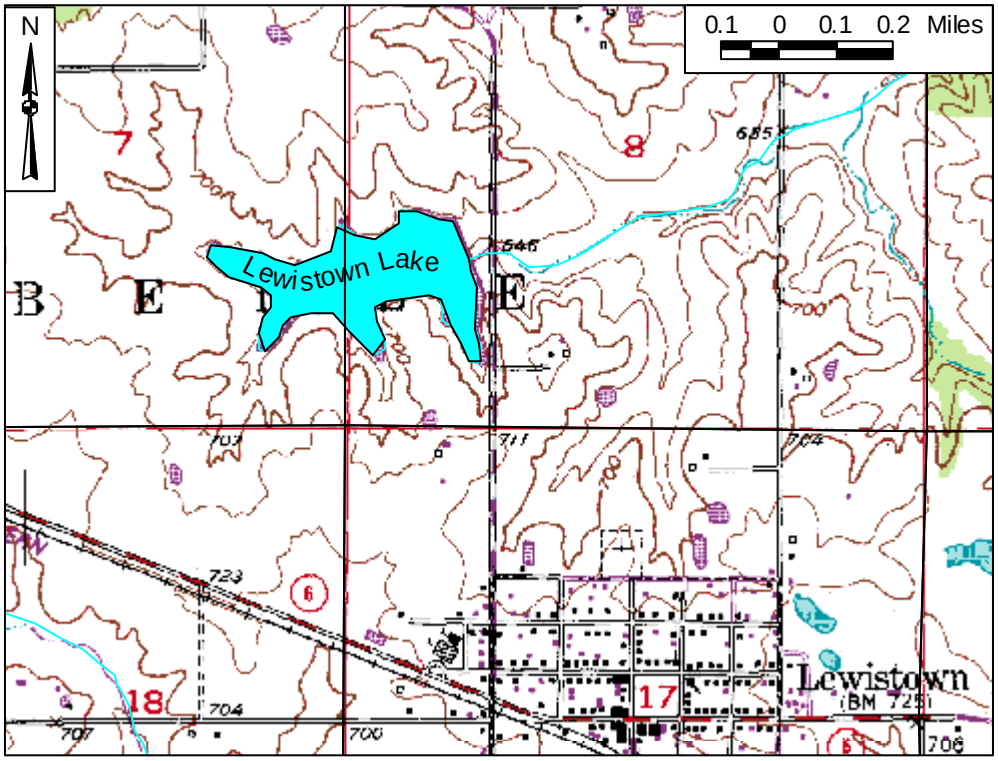
Runoff from corn and sorghum production areas in the watershed has resulted in measurable amounts of atrazine and cyanazine within the lake. Atrazine is a widely used herbicide for control of broadleaf weeds. It is the most heavily used herbicide on corn and grain sorghum in Missouri. Atrazine is

considered a possible human carcinogen, so the state standard for allowable amounts in drinking water supply source waters is set at three micrograms per liter (µg/L) or parts per billion.

Cyanazine is a chemical similar to atrazine and was used on corn and sorghum to control broadleaf weeds and grasses. It was banned from production after December 31, 1999. Cyanazine is relatively persistent in the environment and under certain conditions will remain at significant levels in surface water for over one year. The U.S. Environmental Protection Agency has classified cyanazine as a possible cancer-causing agent in humans. The Federal Health Advisory Level for cyanazine is 1 µg/L.

Lake water has been monitored for herbicides from 1991 through 1993 and again in 2002. In the early 1990's the average level of Atrazine was 5.01 µg/L and Cyanazine 3.98 µg/L. In 2002 the average Atrazine level was 0.84 µg/L and no Cyanazine was detected. The Department of Natural Resources terminated herbicide monitoring of the lake after September 2002 due to the fact that it is no longer used for drinking water.

Lewistown Lake in Lewis County, Missouri



For more information call or write:

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